

CLAIMS: I claim:

1 1. A wheelchair suspension comprising:

2 a frame member;

3 a pivoting assembly having:

4 a pivot arm pivotally coupled to the frame and
5 having a first engagement surface;

6 a drive assembly pivotally coupled to the frame
7 and having a second engagement surface configured to engage
8 the first engagement surface; and

9 wherein the second engagement surface is
10 configured to disengage from the first engagement surface
11 upon pivotal movement of the drive assembly in a first
12 direction.

1 2. The suspension of claim 1 wherein the first engagement
2 surface comprises a shoulder.

1 3. The suspension of claim 1 wherein the second
2 engagement surface comprises a cylindrical shape.

1 4. The suspension of claim 1 wherein the first engagement
2 surface comprises an undulating surface.

1 5. The suspension of claim 3 wherein the cylindrical
2 shape is received by the undulating surface.

1 6. The suspension of claim 1 wherein the pivot arm and
2 the drive assembly are pivotally coupled to the frame at a
3 common location on the frame.

1 7. The suspension of claim 1 further comprising a
2 resilient member for regulating the second engagement
3 surface disengage from the first engagement.

1 8. The suspension of claim 1 wherein the pivot arm
2 further comprises a first and second ends and wherein the
3 first end has a castor assembly coupled thereto and wherein
4 the second end comprises the first engagement surface.

1 9. The suspension of claim 6 wherein the pivot arm
2 further comprises a first and second ends and wherein the
3 first end has a castor assembly coupled thereto and wherein
4 the second end comprises the first engagement surface, and
5 wherein the common pivot location is between the first and
6 second ends.

1 10. A wheelchair suspension comprising:
2 a frame;
3 at least one pivot arm pivotally coupled to the frame
4 and having a first engagement surface;
5 at least one drive assembly pivotally coupled to the
6 frame and having a second engagement surface;
7 wherein the pivot arm and drive assembly are pivotally
8 coupled to the frame at a common location on the frame; and
9 wherein the first and second engagement surfaces are
10 configured to engage each other upon pivotal motion of the
11 drive assembly in a first direction and to disengage from
12 each other upon pivotal motion of the drive assembly in a
13 second direction.

1 11. The suspension of claim 10 wherein the first
2 engagement surface comprises a shoulder.

1 12. The suspension of claim 10 wherein the second
2 engagement surface comprises a cylindrical shape.

1 13. The suspension of claim 10 wherein the first
2 engagement surface comprises an undulating surface.

1 14. The suspension of claim 10 further comprising a
2 resilient member disposed between the pivot arm and the
3 drive assembly to limit the relative pivotal movement
4 therebetween.

1 15. The suspension of claim 10 wherein the pivot arm
2 comprises a front portion having a at least one caster
3 coupled thereto and a rear portion having the first
4 engagement surface.

1 16. The suspension of claim 15 wherein the pivotal
2 coupling of the pivot arm is between the front and rear
3 portions of the pivot arm.

1 17. The suspension of claim 10 wherein pivotal motion of
2 the drive assembly in a first direction causes pivotal
3 motion of the pivot arm and pivotal motion of the drive
4 assembly in a second direction does not cause pivotal
5 motion of the pivot arm.

1 18. A wheelchair suspension comprising:
2 a frame having first and second sides;

3 first and second pivoting assemblies coupled to the
4 first and second sides of the frame, each pivoting assembly
5 comprising:

6 a pivot arm pivotally coupled to the frame and
7 having a first engagement surface;

8 a drive assembly pivotally coupled to the frame
9 and having a second engagement surface configured to engage
10 the first engagement surface; and

11 wherein the second engagement surface is
12 configured to disengage from the first engagement surface
13 upon pivotal movement of the drive assembly in a first
14 direction.

1 19. The suspension of claim 18 wherein the first
2 engagement surface comprises at least a partially
3 undulating surface.

1 20. The suspension of claim 19 wherein the second
2 engagement surface comprises a shape configured to be at
3 least partially seated within the at least partially
4 undulating surface.